

## **ABSTRACT**

### **Method for estimating a carrier leak, an estimator and modulation system provided with automatic control of a carrier using said system**

The invention relates to a method of estimating a carrier leak making it possible to solve the accuracy degradation problem associated with a poor reception by the central carrier.

A subject of said invention is a method of estimating a carrier leak consisting in:

- varying a complex gain  $Z$  applied to the received signal  $s$  between at least two predetermined values  $Z1$  and  $Z2$ ;
- measuring the position  $(PD1, PD2)$  of the central carrier of the signal  $s$  demodulated for each applied gain  $(Z1, Z2)$ ;
- calculating at least a part of the carrier leak based on the measured positions  $(PD1, PD2)$  and the applied gains  $(Z1, Z2)$ , the calculated carrier leak part (offset-mod) corresponding to the leak due to the modulator.

[Figure 3]